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APPLICATION NUMBER: ***60/097,265***
FILING DATE: ***August 20, 1998***

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Appendix A

Approved for use through 04/11/98. OMB 0651-0
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PROVISIONAL APPLICATION COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53 (b)(2).

Docket Number	GRIFH-49133	Type a plus sign (+) inside this box →

INVENTOR(s)/APPLICANT(s)

LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
Smith	Gower		New South Wales, Australia
Okraglik	Henry		New South Wales, Australia
Reardon	Mathew		Palo Alto, California USA
Grosse	Eric		Palo Alto, California USA

TITLE OF THE INVENTION (280 characters max)

GOODS/SERVICES REQUISITION AND SUPPLY SYSTEM

CORRESPONDENCE ADDRESS

David G. Parkhurst, Esq.
Fulwider Patton Lee & Utecht, LLP
10877 Wilshire Boulevard, Tenth Floor
Los Angeles

STATE	CA	ZIP CODE	90024	COUNTRY	U.S.A.

ENCLOSED APPLICATION PARTS (check all that apply)

[X]	Specification	Number of Pages: 19	[ ]	Small Entity Statement	
[X]	Drawing(s)	Number of Sheets: 3	[ ]	Other (specify)	

METHOD OF PAYMENT (check one)

[X]	A check or money order is enclosed to cover the Provisional filing fees	PROVISIONAL FILING FEE AMOUNT ($)	150.00
[ ]	The Commissioner is hereby authorized to charge filing fees and credit Deposit Account Number:		

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

[X] No.

[ ] Yes, the name of the U.S. Government agency and the Government contract number are: _____

Respectfully submitted,

SIGNATURE David G. Parkhurst Date 8/20/98

TYPED or PRINTED NAME David G. Parkhurst REGISTRATION NO. (if appropriate) 29,422

EXPRESS MAIL LABEL NO. EL032312340US

[ ] Additional inventors are being named on separately numbered sheets attached hereto

PROVISIONAL APPLICATION FILING ONLY

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FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1. These are the fees effective October 1, 1997.
Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12. See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT ($) 150.00

Complete If Known	
Application Number	
Filing Date	
First Named Inventor	Gower Smith
Examiner Name	
Group / Art Unit	
Attorney Docket No.	GRIFH-49133

METHOD OF PAYMENT (check one)

1. [X] The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number: 06-2425
Deposit Account Name: Fulwider Patton Lee

[X] Charge Any Additional Fee Required Under 37 C.F.R. §§ 1.16 and 1.17
[ ] Charge the Issue Fee Set in 37 C.F.R. § 1.18 at the Mailing of the Notice of Allowance

2. [X] Payment Enclosed: [X] Check [ ] Money Order [ ] Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
101	790	201	395	Utility filing fee	
106	330	206	165	Design filing fee	
107	540	207	270	Plant filing fee	
108	790	208	395	Reissue filing fee	150
114	150	214	75	Provisional filing fee	
				SUBTOTAL (1)	($) 150

2. EXTRA CLAIM FEES

	Extra Claims		Fee from below	Fee Paid
Total Claims		-20** =		
Independent Claims		- 3** =		
Multiple Dependent				

**or number previously paid, if greater; For Reissues, see below

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
103	22	203	11	Claims in excess of 20
102	82	202	41	Independent claims in excess of 3
104	270	204	135	Multiple dependent claim, if not paid
109	82	209	41	** Reissue independent claims over original patent
110	22	210	11	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($)

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet.	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	950	217	475	Extension for reply within third month	
118	1,510	218	755	Extension for reply within fourth month	
128	2,060	228	1,030	Extension for reply within fifth month	
119	310	219	155	Notice of Appeal	
120	310	220	155	Filing a brief in support of an appeal	
121	270	221	135	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,320	241	660	Petition to revive - unintentional	
142	1,320	242	660	Utility issue fee (or reissue)	
143	450	243	225	Design issue fee	
144	670	244	335	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	790	246	395	Filing a submission after final rejection (37 CFR 1.129(a))	
149	790	249	395	For each additional invention to be examined (37 CFR 1.129(b))	

Other fee (specify) _____
Other fee (specify) _____

*Reduced by Basic Filing Fee Paid SUBTOTAL (3) ($)

SUBMITTED BY				Complete (if applicable)	
Typed or Printed Name	David G. Parkhurst			Reg. Number	29,422
Signature	David G. Parkhurst	Date	8/20/98	Deposit Account User ID	

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EXPRESS MAIL LABEL NO. EL032312340U

PROVISIONAL PATENT APPLICATION

OF

GOWER SMITH

HENRY OKRAGLIK

MATHEW REARDON

AND

ERIC GROSSE

FOR

UNITED STATES LETTERS PATENT

ON

GOODS/SERVICES REQUISITION

AND SUPPLY SYSTEM

09208259 082605

Sheets of Drawings: Three

Docket No. GRIFH-49133

FULWIDER PATTON LEE & UTECHT, LLP
10877 Wilshire Boulevard
Tenth Floor
Los Angeles, California 90024
Tel: (310) 824-5555
Fax: (310) 824-9696

Express Mail Label No. EL032312340US

GOODS/SERVICES REQUISITION and SUPPLY SYSTEM

The present invention relates to a goods/services requisition and supply system, and particularly, but not exclusively, to a computer based requisition system utilising a vending device for supply.

The co-applicants, Imaging Technologies Pty Limited, have made a number of patent applications relating to automated retailing and vending systems and devices. The disclosure of the co-applicants earlier filed international patent applications PCT/AU93/00416, PCT/AU95/00154 (publication numbers WO94/04446 and WO95/26004, respectively) and PCT/AU97/00058 are incorporated herein by reference. PCT/AU93/00416 relates to a vending machine which facilitates recycling of complex articles, such as printer and toner cartridges. PCT/AU95/00154 discloses an electronic catalogue device and system for enabling remote ordering of goods/services. PCT/AU97/00058 discloses an improved electronic ordering system which, in particular, provides a considerable retailing network utilising PC's, dedicated electronic ordering devices (e.g., kiosks), combined vending and electronic ordering devices, all connected together via a communications network (which may be the Internet) for ordering and obtaining any product.

Previously, where an office worker wished to requisition office supplies, they would make a phone call to the store department who would requisition the required goods, cost it to the relevant department and advise when it was ready for delivery or collection.

Over time the cost of operating (particularly for medium sized and small operations) such requisition systems and storage departments created a trend towards out sourcing the provision of goods and services such as office supplies. Recent trends have been towards replacing telephone ordering with computer based ordering of goods. Either a paper trail order may be generated from a computer

based system or there may be a direct or network link to the supplier by which computer generated orders may be directly sent. The supplier will then fill the order by delivery, and invoice.

Although such computer based ordering systems are more convenient than the former manual process, nevertheless there is still a very significant time delay between generating an order and having the order filled. Unless the orderer carefully monitors their requirements this can lead to shortages of material in the office or, at the other extreme, maintenance of large supplies of stock not required for use until some time in the future.

It would be useful if a system were available in which a person could requisition an item, for example by generating an order on his computer, and that item would then be immediately available locally on site.

Some of the patent applications referenced above disclose devices which provide a local vending facility combined with a connection to a supplier for audit purposes and also for ordering goods from a remote location. These devices are generally quite complex hardware arrangements, however, and require significant computing power. They must also, generally, satisfy the needs of multiple users who may belong to different firms, and are usually connected in separate "retailing networks".

The present invention provides a goods/services requisition and supply system, comprising a computer system ~~including ordering means for generating an order for a~~ goods/services item in response to operation of the computer system by a user, and a vending device connected to the computer system and including storage means for storing goods, the vending device being arranged to be responsive to the ordering means generating an order for an item available in the storage means, to provide the item to the user.

By "computer system" is meant a proprietary computer system, such as a local area network (LAN), Intranet or Enterprise computer system. That is, the system is likely to be operated by a single entity, eg. a single company. Further, "computer system" does not include an arrangement where the vending device and computer system are one and the same eg. a stand alone vending device which is controlled by a processor in the same housing. The term "computer system" may include a single computer, such as a PC or server computer, for example, which is connected to control the vending device. Preferably, the "computer system" would be a proprietary network system, as discussed above. The "computer system" is preferably not a system which is dedicated to providing an interface with the vending device. A computer system is preferably used for other tasks e.g., it may be a general office computer system with processing facilities, document management facilities, etc. The interface with the vending device is merely an additional function of the computer system.

In a preferred embodiment the ordering means enables a user to place an order from his desktop PC which is connected in the computer system, and the vending device then makes the item that is ordered available on site. For example, if an office worker determines that a printer is running out of ink, they will access the ordering means from their PC to order a printer cartridge stored in the vending device. The vending device will then make that printer cartridge available to the user. The user therefore does not have to wait for delivery from a remote location.

Preferably, the ordering means is also arranged to advise a supplier (preferably by a communications link, which may be the Internet or any other communications link) that an item has been requisitioned. The ordering means

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also preferably advises the supplier that the order has been filled via the local vending device. The supplier can then generate an invoice.

Preferably, the ordering means is able to access a database which keeps a running record of the items that are available at the vending device. When an item is requisitioned from the vending device, the ordering means is arranged to adjust the database accordingly. The supplier preferably also has access to this database so that they are aware of the items available and can audit the orders which have been filled.

The system of the present invention, therefore, preferably has the advantages that the customer (user) can obtain the required items simply and easily without having to wait for delivery from a remote location. Furthermore, a supplier who is maintaining the device and ordering means can keep track of the items being requisitioned and can be in a position to maintain the stock of the vending device to ensure that the customer's requirements are always able to be met.

Preferably the ordering means also enables a user to order goods which are not available at the vending device but which are available by delivery. This embodiment therefore marries the benefits of systems which allow remote ordering from a computer system, with the benefits of having goods immediately available on site.

Preferably the supplier can monitor which goods are "critical" and can keep these goods in the vending device so that they are always available at very short notice. Less-critical goods can be made available for remote ordering and delivery.

Preferably, when the ordering means receives an order from the user of the computer system, it is arranged to determine whether an item is available on site or needs to be remotely ordered. If the item is not available

on-site, the ordering means advises the user and automatically generates an order to the supplier so that the item will be delivered later. If the item is available from the vending device, the ordering means advises the user and the user then attends the vending device to receive the item.

As an alternative to a separate invoicing procedure instituted by the supplier, a user may make payment on ordering, for example, via an EFT system associated with the vending device. There may be a network or direct connection to the EFT system from the vending device. Preferably, the vending device includes a key pad via which data can be entered. The key pad preferably works in two modes. In the first mode, the key pad is arranged to operate the vending device and identification numbers, such as PINs may be entered via the key pad to identify a user to the vending device and enable it to deliver to the user the required product. In a second mode, the key pad operates in encryption mode, and interfaces with the EFT network to facilitate a remote payment transaction.

Preferably, the vending device is arranged to operate as a peripheral to the computer system. The software for control (e.g., the ordering means) of the ordering and the vending device is preferably resident on the computer system, eg. on the network server. The behaviour of the vending device can therefore be controlled by the computer system. This minimises the hardware needs for the vending device. The computer power of the computing system is used to control and monitor ordering and control the vending device. The vending device can therefore be very much less complex than the type of stand-alone vending devices such as described in the above-referenced applications. Preferably, control is directly from the computer system e.g., to the extent of controlling

the mechanisms which enable delivery of product from the vending device, from the computer system itself. The vending device is preferably remotely controlled.

Preferably, the vending device includes sensor means for verifying that goods have been dispensed, so that the ordering means (and thereby the supplier) can confirm that an item has been released to the user. The sensor means may be an optical sensor.

The present invention further provides a vending device including means for storing items for vending, and control means enabling remote control of the vending device from a remote location.

The present invention further provides a computer system, including ordering means for generating an order for a goods/services item in response to operation of the computer system, the ordering means including means for determining whether a local vending device stores a goods/services item and, in response to the determination generating an order for the item to be dispensed from the local vending device.

The present invention yet further provides a method of providing goods/services items to a person, comprising the steps of providing items on site stored in a local vending device which is arranged to be accessed by a computer system of the person to control vending of goods to the person.

Features and advantages of the present invention will become apparent from the following description of an embodiment thereof, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a schematic block diagram of a goods/services requisition supply system in accordance with an embodiment of the present invention;

Figure 2 is a schematic front view of an embodiment of a vending device for use with the system of

Figure 1;

Figure 3 is a schematic diagram of software architecture of software for controlling the system of Figure 1.

Figure 1 illustrates a goods/services requisition and supply system which comprises a computer system generally designated by reference numeral 1 and which, in this example, is a local area network (LAN) including a server 2 and PCs 2, 3, 4, 5, 6, which may be on the desktops of various operators of the computer system.

The requisition and supply system 1 also comprises a local vending device 7 which operates as a peripheral of the computer system 1 and is connected to the server 2. The local vending device 7 includes storage means (not shown in Figure 1 but see later) for storing goods which may be required by operators of the computer system. Further the system 1 includes an ordering means, which in this example is an ordering software module 8, which is resident on the server 2.

The ordering module 8 is accessible from any one of the PCs 2 to 6 and enables an operator to generate an order for a goods/services item. The ordering module 8 is arranged to control the vending device 7 such that, if an item is available in the storage means of the vending device 7, the vending device is arranged so that the item will be provided to the user.

A communications link (which may be any ~~communications link, eg. telephone line, Internet) 9 is~~ provided to supplier system 10.

The supplier operating the supplier system monitors by way of the ordering module 8 the status of the local vending device 7. The supplier can therefore determine when items have been vended from the vending device 7 and act appropriately, eg. by generating an invoice for the supplied item. By way of the ordering

module 8, and the communications link 9, the supplier system 10 is also able to monitor the stock status of the local vending device 7 and arrange for re-stocking to ensure that items are available in the local vending device 7.

A schematic front view of the vending device 7 is shown in Figure 2. The device has a plurality of doors 11 to compartments (not shown) which may store goods. There is also a chute exit 12 exiting from a chute (not shown) and via which goods may be dispensed. A key pad 13 is also provided for input of information. Preferably, the key pad is a simple numeric key pad, although it may be alpha numeric if required. A card reader 14 is also provided for reading details from a magnetic stripe card. As an alternative, a smart card reader may be provided. An LCD display 15 is also provided in this embodiment, although this display is not essential and a simpler display may be provided or no display at all. A control means, in this case control unit 16 is also provided. All components are housed in a housing 17.

Each of the doors 11 to the compartments are operable under control of the control unit 16. Suitable remotely operated locks may be provided, such as disclosed in PCT/AU93/00416 referred to above. Opening of the doors 11 allows access to items within the compartments behind the doors 11, again substantially as disclosed in the co-applicant's earlier patent application PCT/AU93/00416.

Further storage means may also be provided with access to the chute 12 and an appropriate mechanism (which may be a conventional vending mechanism) for vending to the chute 12 so that the user can receive the item.

The key pad allows the user to enter a code which identifies the user to the computer system 1 and enables the vending device to give the user access to an item previously ordered via the computer system. The display

17 may provide instructions to guide the user, but is not essential.

As an alternative identification means the card reader 14 could be used to read a magnetic stripe card which identifies the user before the ordered item is released.

The card reader may also be used to read a credit card or account card for electronic funds transfer (EFT) payment for the items ordered, the EFT transaction being dealt with by the computer system under separate communications link to an EFT provider (not shown).

The local vending device 7 is arranged to operate essentially as a peripheral to the computer system 1. The ordering module 8 software on the computer system 1 is arranged to control the local vending device as if it were peripheral via control unit 16. The control unit 16 includes an interface 18 which interfaces with the ordering module 8, so that the ordering module 8 can directly control release of doors 11 and delivery of items via chute 12. The control unit 16 may be a simple controller which is controlled directly from a server computer to or from a PC containing the ordering module 8. In other words, instructions from the remote computer control such functions of the vending device as opening the doors, dispensing a product from the chute, etc. Further, the ordering module 8 receives input from the key pad 13 or card reader 14 and may refer this input to the ordering module 8 via the interface 16. The ordering module 8 can then carry out the necessary operations and continue control of the local vending device 7 in response to the key pad 13 or card reader 14 input. If a display 15 is provided, the ordering module 8 may also control the display to guide the user through the steps necessary to obtain the item from the vending device 7, and that control may be provided by the ordering module 8 remotely

controlling the control unit 16 to control the display 15.

As well as enabling the user of the computer system 1 to order items stored in the local vending device 7, the ordering module 8 also enables the user to order goods/services which are not stored in the local vending device 7 but are available for delivery from the supplier 10.

Figure 3 is a schematic diagram of the software architecture of the ordering module 8. The software includes a vending peripheral interface and control module which is arranged to control the local vending device via the interface 18 resident in the control unit 16. This module controls the release of door locks for doors 11 and operates the chute 12 for delivery of items. A product database 21 includes information on all the goods/services which are available for order both from the supplier for delivery and in the local vending device 7. The user interface 22 provides an interface to a user of a PC 2 to 6 to enable them to order goods/services. The user interface may include a suitable display providing information on goods/services available in the database and the information will include whether the goods/services are available on site at the local vending device or need to be ordered for later delivery.

The ordering engine 23 interfaces with each of the other software modules 20, 21 and 22 and controls the ordering process, including carrying out the following functions:

a) updating the product database as orders are filled, product is restocked into the local vending device, supplier makes available new items at the local vending device or for delivery and informs the ordering engine over the communications line 9, etc.;

b) provides information to the peripheral interface and control identifying which storage means an

item which has just been ordered is located in so that the vending peripheral interface and control 20 may operate the appropriate door 11 or the chute 12;

c) reads the identification information which is input to the vending device 7 by user via the keypad 13 or card reader 14, and determines whether the user should be allowed to receive an item and then instructs the vending peripheral interface and control 20 in accordance with the above;

d) receives input from the user interface 22, determines whether a product which is to be ordered is on site or is available off site. If on-site it controls the vending peripheral and control 20 accordingly and if off-site generates an order which is automatically sent to the supplier by communications link 9.

As discussed above, an advantage of having the ordering module 8 software on the computer system 1 is that the power of the computer system 1 can be used to control ordering and vending and there is no need for a great deal of computer power to be provided in the vending device 7 itself. The vending device can therefore essentially be operated as a peripheral, which means it can be provided at an economic price.

In operation, the user of the system (who may be any office operator), determines that office supplies are required, eg. an ink cartridge for the printer and some paper for the photocopier. The user logs on to the ordering module 8, (at PC 5, for example,) and requests an order for so many reams of office paper and a printer cartridge, by way of user interface 22. The user interface enables the user to select the required goods. The ordering engine 23 then accesses the product database 21 and determines what goods in the user's "shopping basket" selection are available at the local vending device 7 and what goods are to be ordered from the supply system 10.

In this case, the printer cartridge is available in one of the compartments behind the doors 11 and the reams of copier paper must be ordered from the supplier. The ordering engine generates an order to the supplier system 10 for the reams of paper, which will be delivered at a later date. The user is informed via the user interface 22 that the order has been generated and delivered to the supplier system 10.

For the printer cartridge, the ordering engine informs the user via the user interface 22 that the printer cartridge is available at the local vending device 7 and advises the user of a PIN number which the user will need to input via the keypad 13 in order to obtain the product.

The user goes to the vending device 7 and inputs the PIN via the keypad 13. Control unit 16 detects the input to the keypad and via the interface 18 and vending peripheral interface the ordering engine determines that the PIN input is correct and, again via the vending peripheral interface control 20, controls the vending device 7 to open one of the doors 11 of a compartment containing a printer cartridge.

In this embodiment an optical detection means (not shown) detects when the printer cartridge is removed from the compartment so that the ordering engine 23 knows that the product has been removed. The ordering engine 23 can then advise the supplier system that the printer cartridge has been requisitioned by the user, and the supplier system can then raise an appropriate invoice.

If no optical detection (or relevant detection means) is available, the ordering engine 23 may assume that the printer cartridge has been removed when the door 11 operation is actuated.

Where an item is delivered via the chute 12, a suitable detection means within the chute may advise the ordering engine 23 of product delivery.

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As an alternative to raising a separate bill, payment may be made immediately via card reader 14 and the EFT system or credit card system (not shown).

Further, the card reader 14 may be used to identify the user, rather than using a PIN number.

The ordering engine 23 keeps the product database updated as discussed previously, so that the supplier is aware when stock in the local vending device 7 is getting low and can send out a restockist.

The local vending device may also be used to receive items for recycling, such as used printer cartridges, for example, in a similar manner as described in co-applicant's earlier PCT application. The ordering module 8 monitors items being placed in the local vending device for recycling and the operation of the system by the user would be the same as discussed above only in reverse eg. user informing the ordering module 8 that it is required that an item be put into the local vending device for recycling, going to the recycling device once the ordering module 8 has been informed, the ordering module controlling one of the doors 11 to open and the user putting the item to be recycled into the compartment and closing the door 11. If, during operation of the system, a PIN is provided to the user, this PIN may be in the form of an order number. As well as enabling the user access to the local vending device, this order number is transmitted to the supplier system and can be used in an audit trail of the goods/services supplied.

In a further embodiment, the employee number or a identification card specifically belonging to an employee can be used to identify the user to the local vending device. This enables the employer to find out who is requisitioning goods from the local vending device or from the remote supplier (i.e., for any order whether from the local vending device or remotely). This employee number or

identification can also be transmitted to the supplier system to use in an audit trail.

Where an EFT function or the like is provided, the key pad 13 may have dual-mode operation. In a first mode, the key pad operates in a non-secure mode for entering data for controlling operation of the vending device 7 and required by the ordering means 20. In a second mode, the key pad 13 operates in a secure mode, providing encrypted data as required by the EFT system. The provision of a key pad are ???? in two modes on a vending device is a novel feature.

Note that although the above description refers to office supplies as being stored in the local vending device, any goods could be stored in the local vending device eg. foodstuffs, compact discs, etc. Similarly, any goods/services may be ordered for delivery from the supply system. Further, the above disclosure refers to an in-office computer system and associated vending device. The invention is not limited to the in-office system, but could be used with any system where supplies need to be requisitioned. For example, it could be used by a factory computer system, and others.

The above vending device 7 has been described as a peripheral with all the control software being resident on the computer system 1. Although this is the preferred embodiment, it will be appreciated that the software may be resident on the local vending device 7, in which case it will need more computer power than is disclosed in the above example, or there may be some software resident in the local vending device and some software resident in the computer system 1.

Variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are,

therefore, to be considered in all respects as illustrated and not restrictive.

98298005

CLAIMS:

1. A goods/services requisition supply system, comprising a computer system including ordering means for generating an order for a goods/services item in response to operation of the computer system by a user, and a vending device connected to the computer system and including storage means for storing goods, the vending device being arranged to be responsive to the ordering means generating an order for an item available in the storage means to provide the item to the user.

2. A system in accordance with claim 1, wherein the ordering means is arranged to determine whether an ordered item is available in the storage means or is available from a remote supply location, and if the item is only available from the remote supply location is arranged to generate an order for transmission to a remote supplier.

3. A system in accordance with claim 1 or claim 2, wherein the ordering means is arranged to monitor stock levels of items in the vending device and a remote supplier can ascertain the stock level from the ordering means, whereby to enable the supplier to maintain the stock of the vending device.

4. A system in accordance with any one of claims 1, 2 or 3, wherein the ordering means is resident on the computer system and the vending device operates as a peripheral controlled by the computer system.

5. A system in accordance with any one of the preceding claims, wherein the computer system is a proprietary computer system, such as LAN, Intranet or Enterprise system.

6. A system in accordance with any one of the preceding claims, wherein the vending device is arranged to receive articles for recycling and the ordering means is arranged to track items being placed in the vending device for recycling and advise the remote supplier.

7. A system in accordance with any one of the preceding claims, wherein the system includes means for enabling remote payment for items ordered by a user.

8. A system in accordance with any one of the preceding claims, wherein the vending device includes sensor means arranged to sense when an item is dispensed.

9. A system in accordance with any one of the preceding claims, wherein the vending device is arranged to dispense the item on receipt of an identification means from the user.

10. A system in accordance with claim 9, wherein the ordering means, on an item being ordered by the user, is arranged to provide an identification code to the user, which code is entered by the user at the vending device to obtain the item.

11. A system in accordance with claim 10, wherein the ordering means is also arranged to provide the identification code to a supplier responsible for providing the vended item, wherein the identification code can be used in an audit trail for the supplied goods/services.

12. A system in accordance with any one of claims 7 to 11, wherein the vending device includes a key pad arranged to operate in a secured mode for entering data required for remote payment and in a non-secured mode for entry of other data.

13. A vending device including means for storing items for vending, and control means enabling remote control of the vending device from a remote location.

14. A vending device in accordance with claim 13, wherein the control means enables remote control of a vending operation and allows control of dispensing of items to be directed from a remote location.

15. A vending device in accordance with claim 13 or claim 14, wherein the control means is arranged to communicate with a remote location in response to an

operator requiring access to the vending device, for a vending function, to ask permission from the remote location for access.

16. A computer system, including ordering means for generating an order for a goods/services item in response to operation of the computer system, the ordering means including means for determining whether a local vending device stores a goods/services item and, in response to the determination generating an order for the item to be dispensed from the local vending device.

17. A computer system in accordance with claim 16, wherein if the ordering means determines that the item is not available at the local vending device, it is arranged to generate an order for the item to be provided from a remote supplier.

18. A computer system in accordance with claim 16 or claim 17, wherein the ordering means includes means for controlling the operation of the vending device as a peripheral of the computer system.

19. A computer readable memory storing instructions for controlling a computer system to generate an order for a goods/services item in response to operation of the computer system by a user, and for controlling a vending device connected to the computer system to provide the item to the user.

20. A computer readable memory storing instructions for controlling a computer system to provide an ordering means for generating an order for a goods/services item in response to operation of the computer system, the ordering means including means for determining whether a local vending device stores goods/services items and, in response to the determination, generating an order for the item to be dispensed from the local vending device.

21. A vending device in accordance with any one of claims 13 to 15, wherein the control means enables operation of the vending device as a peripheral of a computer system.

22. A method of providing goods/services items to a person, comprising the steps of providing items on site stored in a local vending device which is arranged to be accessed by a computer system of the person to control vending of goods to the person.

23. A method in accordance with claim 22, comprising the further step of a supplier, not being the person, maintaining the vending device.

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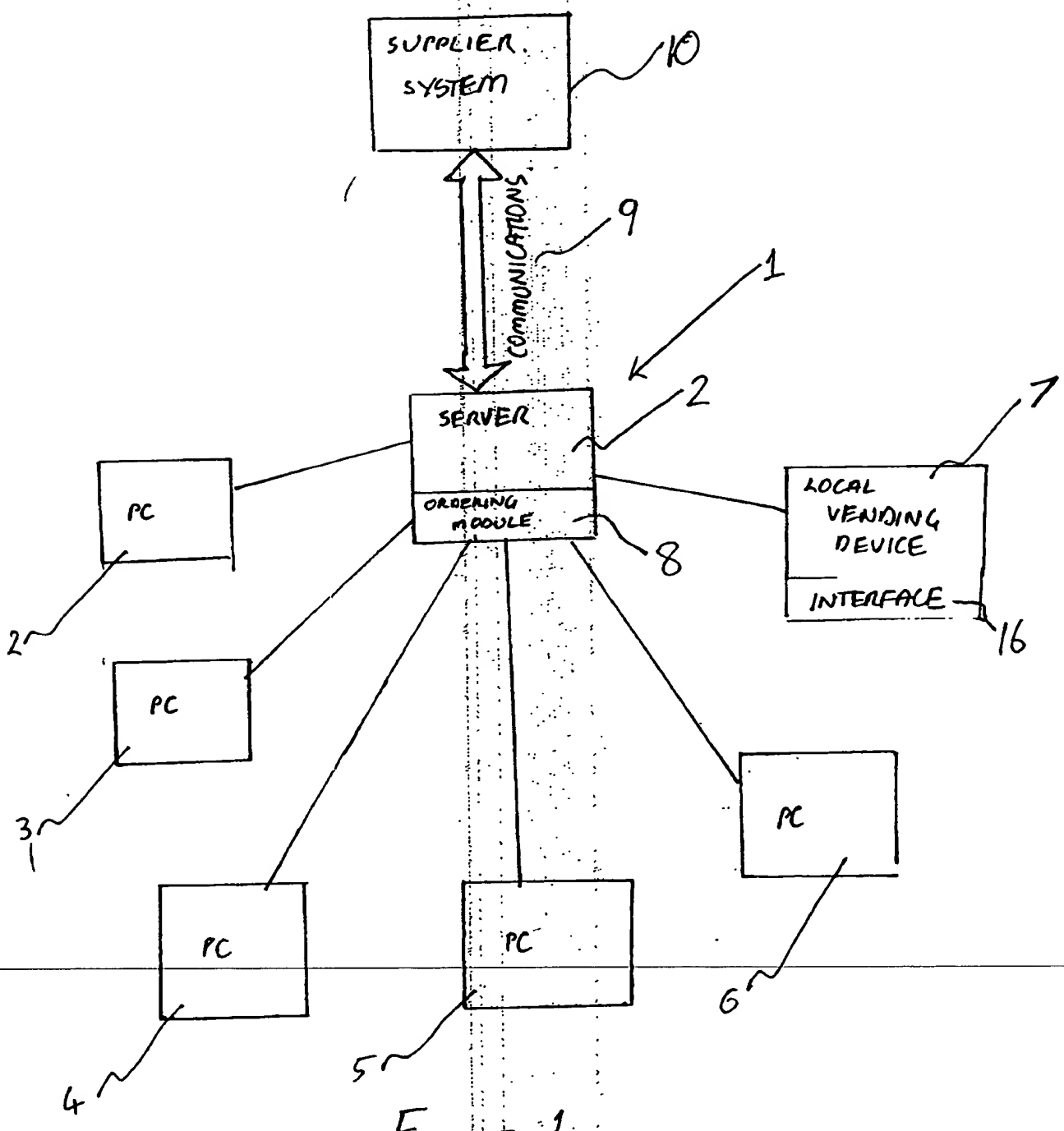
SUPPLIER SYSTEM
10
COMMUNICATIONS
9
1
SERVER
2
ORDERING MODULE
8
LOCAL VENDING DEVICE
7
INTERFACE
16
PC
2
PC
3
PC
4
PC
5
PC
6

FIGURE 1

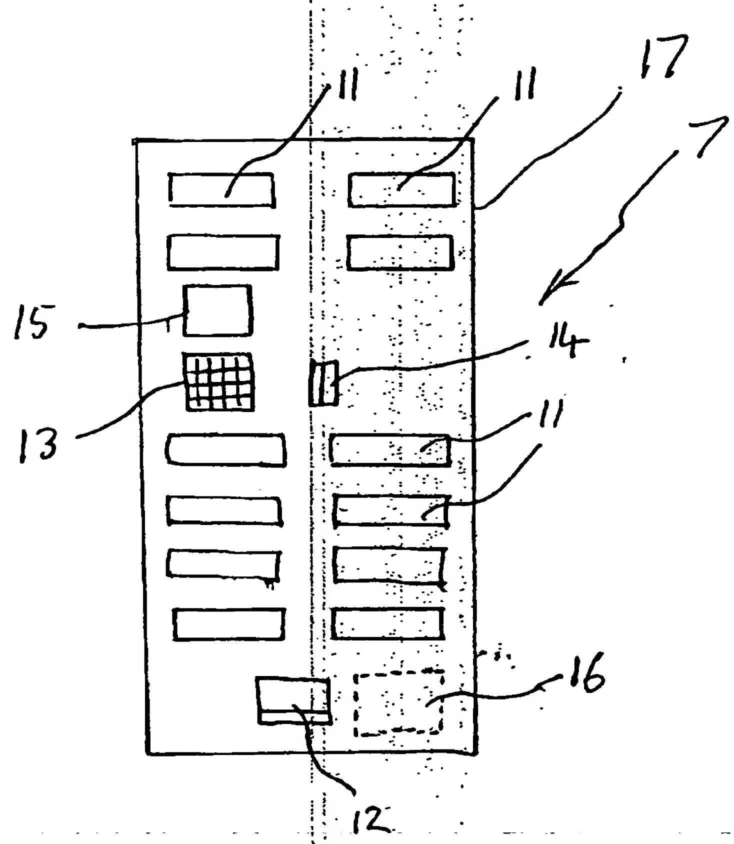

FIGURE 2

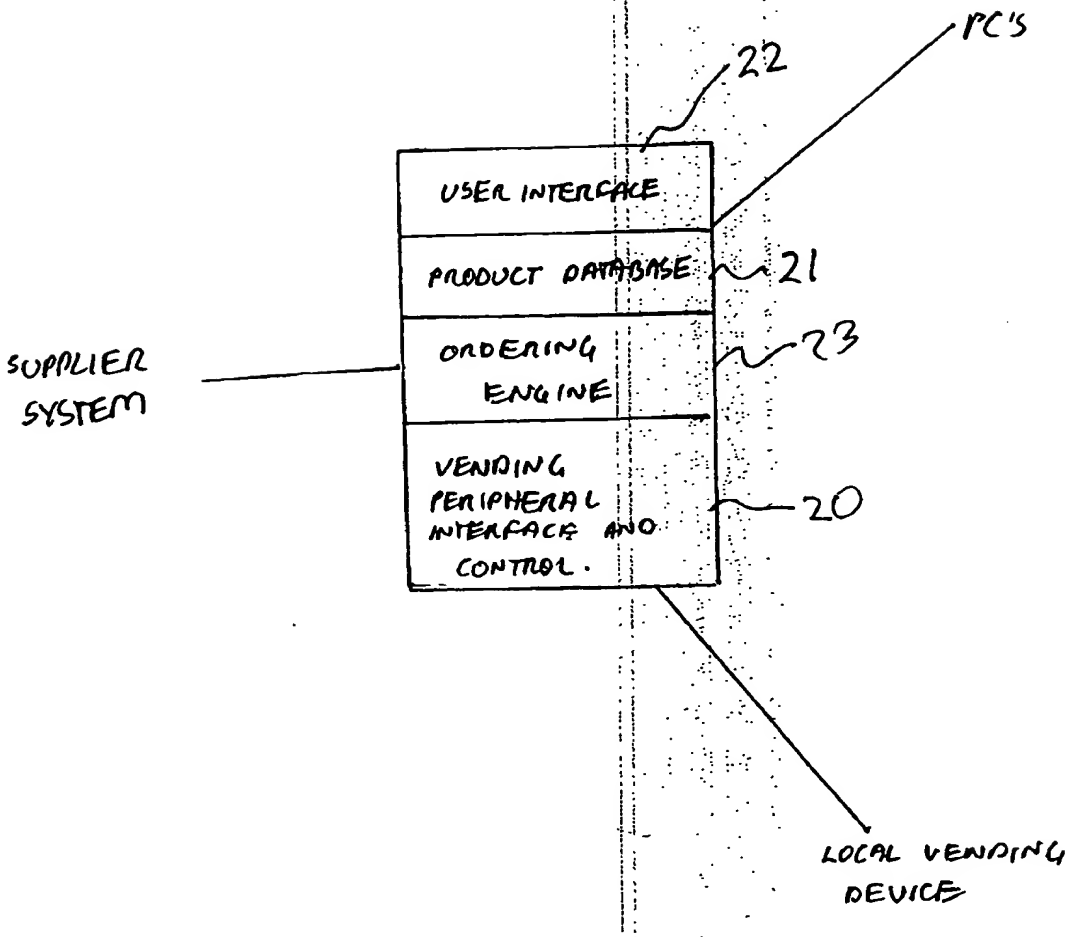
PC's
22
USER INTERFACE
PRODUCT DATABASE
21
ORDERING ENGINE
23
SUPPLIER SYSTEM
VENDING PERIPHERAL INTERFACE AND CONTROL.
20
LOCAL VENDING DEVICE

FIGURE 3

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